

CLAIMS

1. A solar cell for placing on a solar generator panel (10, 10') the cell being characterized in that it is coupled to a reflector (70, 71, 700) for reflecting solar radiation onto the cell (9), the reflector which is designed also to be placed on said panel being of substantially the same width as the contact width of the cell and being fixed at one of its ends (E1) in the height direction to the cell by fixing means (22, 24) so that together the cell and the reflector form an individual component (20, 21, 20'), whereas the other end (E2, E2') of the reflector remains free, the mechanical flexibility properties of the reflector being determined in such a manner as to enable it to keep upright in a first position with its free end pointing towards outer space in the absence of vertical pressure being applied thereto, thereby defining a "top" first face (701, 711) of the reflector facing out to space, while the "lower" opposite face (702, 712) faces the panel, and in such a manner, in a second position, as to be capable of presenting its upper face facing towards the plane of the panel in response to the application of vertical pressure.
- 25 2. A cell according to claim 1, characterized in that the cell rests on the central portion of the reflector, the ends thereof being shaped in such a manner as to form two lateral under-reflectors for the cell.
- 30 3. A cell according to claim 2, characterized in that the reflector is made of an electrically insulating material, e.g. Kapton™, and of mechanical reinforcement to make said flexibility possible, e.g. reinforcement made of titanium.
- 35 4. A cell according to claim 2, characterized in that both under-reflectors (700) are fixed by electrically

insulating fasteners (24) to the cell (9), the cell resting on an electrically insulating support (23) shaped in such a manner as to support the base of each under-reflector when the under-reflectors are deployed.

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5. A cell according to claim 4, characterized in that the under-reflectors are made of a reflecting film (700).

10 6. A cell according to claim 2, characterized in that said reflector includes a base (12) on which the cell rests, said base and the two under-reflectors forming a single piece of electrically insulating material, the top ends of the under-reflectors being provided with a reflecting film (700, 710).

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20 7. A cell according to any preceding claim, characterized in that, in a section (A-A) in the long direction of a string (8) of cells to which the cell belongs, an electrically insulating support (251-254) of a cell referred to as the "present" cell is shaped to have a profile with two oppositely-directed bends so that a lower first end of the support can support a higher end of a support associated with a first cell adjacent to the present cell and belonging to said string, and the higher 25 second end for supporting the present cell can rest on a lower end of a support associated with a second cell adjacent to said present cell and belonging to said string, this arrangement between adjacent supports enabling the cells in a given string to be fully 30 electrically insulated from the panel supporting the string.

35 8. A cell according to claim 1, characterized in that said flexible reflector presents mechanical properties such that at equilibrium in the first position, said upper face (701, 711) is concave (14).

9. A cell according to claim 1, characterized in that said flexible material presents mechanical properties such that at equilibrium in the first position, each reflector (70, 71) forms a plane with the exception of 5 its free end (E2) which is outwardly curved so as to enable it to come into contact during the stage of releasing vertical pressure.

10. A cell according to claim 1, characterized in that 10 the surfaces of the lower faces (702, 712) present a coefficient of friction that is low.

11. A cell according to claim 1, characterized in that the two upper faces in each pair of under-reflectors 15 associated with the same cell are folded over onto themselves so as to face each other in the second position.

12. A solar generator panel, characterized in that it 20 includes a solar cell according to any preceding claim.

13. A space vehicle, in particular a satellite, characterized in that it includes a solar generator panel according to claim 12.